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Edward O'Neill

Orlando S. Cuevas

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On the Use of the Synthetic Chemical Steroids

EDWARD O'NEILL, M.D.*—ORLANDO S. CUEVAS, M.D.**

In 1957 a synthetic chemical steroid (Enovid) was first approved and placed on the market. This steroid had been under study by the Family Planning Association of Puerto Rico for determining its efficacy in ovulation control. Since then, other synthetic steroids have been approved. These steroids inhibit ovulation and its probable mode of action is by inhibiting the production of the gonadotrophic hormones of the pituitary glands. These steroids are very helpful in treatment of conditions that require inhibition of ovulation, as in primary dysmenorrhea. They are also helpful in controlling and arresting the progress of endometriosis when they are given continuously. By the continuous administration of the drug and increasing its dosage whenever breakthrough bleeding occurs, a woman can be maintained amenorrheic from 6 to 8 months and sometimes longer. The control of vaginal bleeding in the so-called cases of functional bleeding, is another condition where these drugs are of value. They are also helpful in cases of habitual abortion. They can be used to postpone or advance menstruation bleeding in cases where surgery is contemplated and in women who are going to get married, so that bleeding does not occur on the day of marriage. They have been advocated by some to be used in the regulation of menstruation. These drugs do not regulate menstruation. These drugs

alter the normal physiologic process of menstruation by inhibiting ovulation. It is in this use that physicians and patients must exercise care, for these drugs are given more and more frequently for regulation of menstruation and actually this is just an excuse for the use of a contraceptive drug.

It is the duty of Catholic physicians, and particularly gynecologists, to explain the normal physiology of menstruation and the definition of irregularity in menstruation to the proper Catholic authorities, so that the morality of the use of Enovid can be properly determined.

The cyclic function of menstruation in the normal woman depends on the alternating production and withdrawal of ovarian hormones and pituitary gonadotrophic hormones. Under the influence of the follicle stimulating hormone of the pituitary, one or more follicles begin to develop in the ovary. The developing graphian follicle produces estradiol which causes proliferation of the endometrium. As the production of estradiol increases, it reaches a point where it inhibits the production of follicular stimulating hormone by the pituitary. The withdrawal of the follicular stimulating hormone causes a decrease in estradiol production and this permits the release of the interstitial cell stimulating hormone or lutenizing hormone, which supposedly causes ovulation and lutenization of the follicle. The corpus

luteum produces estradiol and progesterone, and it is in turn maintained by the luteotrophic hormone produced by the pituitary.

The progesterone increases the vascularity of endometrium, tortuosity of endometrium glands, and the secretory change in the cells of the glands, thus producing the secretory type of endometrium. As the progesterone and estrogen production increases, the production of luteotrophic hormone is inhibited. With the disappearance of the luteotrophic hormone, the corpus luteum degenerates and estradiol and progesterone production decreases, the endometrium is no longer supported and it is then discarded and bleeding occurs. This is menstruation.

It has been found that ovulation occurs, as a rule, 15 days prior to

menstruation. The ovum has a fertile life of 24 to 48 hours and the sperms have a fertile life of 48 to 72 hours. On these facts is based the periodic continence (so-called rhythm method) approved by the Catholic Church for family planning when indicated.

There are women who have irregularities in the length or duration of the menstrual cycle. By this we mean cycles of less than 21 days duration or longer than 35 days. With these irregularities, patients must be studied so that the cause, if any, can be diagnosed and corrected. This study includes an endocrinological work-up of the patient. Disorders of function of the thyroid, pituitary, adrenal, pancreas, or ovaries can be found, and, as a rule, can be corrected.



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**Clinical Associate of Ob-Gyn, School of Medicine, University of Puerto Rico.